



Clean Version of Pending Claims

EASY MOUNT SOCKET Applicant: Kenzo Ishida et al. Serial No.: 09/217,401

1.(Amended) A mounting socket, comprising:

- a socket body having a first side and a second opposite side, the body having a plurality of vias extending therethrough; and
- a plurality of conductive terminals within the vias, wherein the terminals are adapted to be elastically compressible and exertia return force when compressed, the terminals each positioned in one of the vias comprising a coil and a conductive polymer placed around the coil and filling the one via.
- 4. The mounting socket of claim 1, wherein the conductive polymer is injected within the vias.
- 5. The mounting socket of claim 1, and further comprising: a first adhesive layer affixed to the first side of the body.
- The mounting socket of claim 5, and further comprising:
 a polymer tape applied to the first adhesive layer;
 a ground and power line circuit laid on the polymer tape; and
 a second adhesive layer applied on and protecting the ground and power line circuit.
- 7. The mounting socket of claim 5, and further comprising: a second adhesive layer affixed to the second side of the body.

(Amended) A method of mounting a tocket to a board, the socket having a plurality of elastically compressible conductive terminals each located in a separate via of constant width extending through the socket, comprising

applying an adhesive layer to a board side of the socket;

leveling the adhesive layer to make the adhesive layer substantially coplanar with the terminals of the socket; and

adhering the socket to the board compressing the plurality of terminals against complementary electrical contacts on the board, each terminal comprising a coil and a conductive polymer extending completely through the via, the terminals adapted to exert a return force when compressed.

10. The method of claim 9, and further comprising:

applying a second adhesive layer to a package side of the socket opposite the board side of the socket; and

adhering a package to the second adhesive layer.

11.(Amended) A method of mounting a package to a board using a socket having elastically compressible conductive terminals, each terminal comprising a coil and a conductive polymer, extending completely through and filling the via, the terminals adapted to exert a return force when compressed, the method comprising:

applying a first adhesive layer to a first package side of the socket;

leveling the first adhesive layer to make the adhesive layer substantially coplanar with the terminals;

adhering the package to the first adhesive layer compressing the terminals against complementary electrical contacts on the board, the terminals exerting a return force;

applying a second adhesive layer to a second board side of the socket;

leveling the second adhesive layer to make the second adhesive layer substantially coplanar with the terminals; and

adhering the board to the second adhesive layer compressing the terminals against complementary electrical contacts on the board, the terminals exerting a return force.

12.(Amended) A circuit interconnect, comprising:

a circuit board carrier having a plurality of through holes having straight sides and a constant width formed therein; and

a plurality of elastically compressible solderless conductive terminals with lands at each end, each terminal disposed in one of the through holes, wherein the terminals are adapted to be elastically compressible and exert a return force when compressed, each terminal comprising a coil having the constant width and a conductive polymer extending completely through and filling the via.

- 13. The circuit interconnect of claim 12, and further comprising:
- a first adhesive layer affixed to a first side of the circuit board carrier, the first layer having openings to expose the lands.
- 14. The circuit interconnect of claim 13, and further comprising:
 a second adhesive layer affixed to a second side of the circuit board carrier, the second layer having openings to expose the lands, the second side opposite the first side.
- 17. The circuit interconnect of claim 12, wherein the conductive polymer is injected within the vias.

18.(Amended) A circuit package, comprising:

a substrate having a plurality of conductive terminals therethrough, the terminals comprising a coil and a conductive polymer placed around the coil, the terminals adapted to be elastically compressible and to exert a return force when compressed;

a first adhesive layer affixed to a first side of the substrate; and a nackage affixed to the first adhesive layer.

The circuit package of claim 18, and further comprising: 19. a second adhesive layer affixed to a second side of the substrate, the second side opposite the first side.



20.(Amended) An integrated circuit, comprising:

a substrate having a plurality of vias therein; and

a plurality of elastically compressible terminals, the terminals each positioned in one of the vias comprising a coil and a conductive polymer placed around the coil and filling the one via, the terminal adapted to exert a force when compressed.

21.(Amended) A circuit assembly, comprising:

- a substrate having a built-in socket, the socket having a plurality of vias of constant width therethrough;
- a plurality of elastically compressible conductive terminals, each terminal positioned in one of the vias and comprising a coil and a conductive polymer both extending entirely through the one via, the terminals adapted to exert a return force when compressed;

a circuit board having a plurality of mounting areas, the mounting areas disposed in a plurality of interconnected planes which are substantially non-planar with each other,

wherein each terminal is individually compressible to contact its respective mounting area at the plane of the mounting area.

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22.(Amended) A circuit assembly, comprising:

a microprocessor;

a substrate having a built-in socket having a plurality of vias of constant width therethrough, and a plurality of conductive elastically compressible terminals adapted to exert a return force when compressed, each terminal positioned in one of the vias and comprising a coll and a conductive polymer, at least a portion of each terminal disposed within a via; and

a motherboard having a plurality of mounting areas thereon, wherein each terminal is compressed to contact a mounting area.

- 23. The mounting socket of claim 1, wherein the terminals are adapted to accommodate for an uneven or warped substrate upon which the mounting socket is disposed.
- 24. The mounting socket of claim 1, wherein the terminals are solderless.
- 25. A mounting socket, comprising:
 - a socket body having a first side and a second opposite side, the body having a plurality of vias extending therethrough at a constant width; and
 - a plurality of conductive terminals within the vias, wherein the terminals are adapted to be elastically compressible and exert a return force when compressed, the

terminals comprising a coil extending entirely through the via and a conductive polymer.

- 26. The mounting socket of claim 25, wherein the conductive polymer is injected within the vias.
- 27. The mounting socket of claim 25, and further comprising: a first adhesive layer affixed to the first side of the body.
- 28. The mounting socket of claim 27, and further comprising:
 a polymer tape applied to the first adhesive layer;
 a ground and power line circuit laid on the polymer tape; and
 a second adhesive layer applied on and protecting the ground and power line circuit.
- 29. The mounting socket of claim 27, and further comprising:a second adhesive layer affixed to the second side of the body.

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